

Amendments to the Claims:

Please cancel claims 1-20, 27, 30 and 32-48 without prejudice.

Please add new claims 49 - 65

This Listing of Claims will replace prior versions, and listings, of claims in the application.

Listing of Claims:

1-48. (canceled)

49. (new) An image processing apparatus comprising:

inputting means for inputting area-assignment information that defines a latent-image area and a background area, and additional information which represents that this is the original; and

generating means for generating a pattern image by arranging dots of a first dot size in the background area that is defined by the area-assignment information, and based on the additional information, arranging dots of a second dot size that is a smaller dot size than the first dot size in the latent-image area that is defined by the area-assignment information,

wherein the additional information can be extracted according to the arrangement of dots in the latent-image area in the generated pattern image.

50. (new) An image processing apparatus according to claim 49, wherein when the pattern image generated by the generating means is output on a sheet and the sheet is copied, the image in the background area is reproduced on the copy obtained by copying out of the image in the latent-image area.

51. (new) An image processing apparatus according to claim 50, wherein reproduction of the image in the background on the copy out of the image in the latent-image area represents information indicating that this is a copy.

52. (new) An image processing apparatus according to claim 49, wherein the dots of the first dot size are reproduced by copying, and the dots of the second size are harder to reproduce than the dots of the first dot size.

53. (new) An image processing apparatus according to claim 49, wherein the generating means arranges the dots of the second size at positions based on the additional information in the latent-image area.

54. (new) An image processing apparatus comprising:

inputting means for inputting area-assignment information that defines latent-image area and background area, and additional information;

determination means for determining a plurality of positions in the background area which is defined by the area-assignment information and a plurality of positions in the latent-image area which is defined by the area-assignment information, wherein at least either positions of the plurality of positions in the background area and the plurality of positions in the latent-image area are determined based on the additional information; and

generating means for generating patterned image data by arranging dots of a first dot size at the determined positions in the latent-image area and arranging dots of a second dot size that is a smaller dot size than the first dot size at the determined positions in the latent-image area,

wherein the additional information can be extracted based on the difference between the positions of the arranged dots and predetermined positions.

55. (new) An image processing apparatus according to claim 54, wherein the additional information can be extracted based on the difference between the positions of the arranged dots and predetermined positions in the vertical axis and the difference between the positions of the arranged dots and the predetermined positions in the horizontal axis.

56. (new) An image processing apparatus according to claim 55, wherein the additional information can be extracted based on whether the result of multiplication of the difference between the positions of the arranged dots and predetermined positions in the vertical axis and the difference between the positions of the arranged dots and the predetermined positions in the horizontal axis is negative or positive.

57. (new) An image processing method comprising:

inputting area-assignment information that defines latent-image area and background area, and additional information which represents that this is the original; and

generating a pattern image by arranging dots of a first dot size in the background area that is defined by the area-assignment information, and based on the additional information, arranging dots of a second dot size that is a smaller dot size than the first dot size in the latent-image area that is defined by the area-assignment information,

wherein the additional information can be extracted according to the arrangement of dots in the latent-image area in the generated pattern image.

58. (new) An image processing method according to claim 57, wherein when the pattern image generated in the generating step is output on a sheet and the sheet is copied, the image in the background area is reproduced on the copy obtained by copying out of the image in the latent-image area.

59. (new) An image processing method according to claim 58, wherein reproduction of the image in the background on the copy out of the image in the latent-image area represents information indicating that this is a copy.

60. (new) An image processing method according to claim 57, wherein the dots of the first dot size are reproduced by copying, and the dots of the second size are harder to reproduce than the dots of the first dot size.

61. (new) An image processing method according to claim 59, wherein the generating step arranges the dots of the second size at positions based on the additional information in the latent-image area.

62. (new) A computer-readable storage medium capable of storing computer-executable instructions for performing an image processing method according to claim 57.

63. (new) An image processing method comprising:

inputting area-assignment information that defines latent-image area and background area, and additional information;

determining a plurality of positions in the background area which is defined by the area-assignment information and a plurality of positions in the latent-image area which is defined by the area-assignment information, wherein at least either positions of the plurality of positions in the background area and the plurality of positions in the latent-image area are determined based on the additional information; and

generating patterned image data by arranging dots of a first dot size at the determined positions in the latent-image area and arranging dots of a second dot size that is a smaller dot size than the first dot size at the determined positions in the latent-image area,

wherein the additional information can be extracted based on the difference between the positions of the arranged dots and predetermined positions.

64. (new) An image processing method according to claim 63, wherein the additional information can be extracted based on the difference between the positions of the arranged dots and predetermined positions in the vertical axis and the difference between the positions of the arranged dots and the predetermined positions in the horizontal axis.

65. (new) An image processing method according to claim 64, wherein the additional information can be extracted based on whether the result of multiplication of the difference between the positions of the arranged dots and predetermined positions in the vertical axis and the difference between the positions of the arranged dots and the predetermined positions in the horizontal axis is negative or positive.

66. (new) A computer-readable storage medium capable of storing computer-executable instructions for performing an image processing method according to claim 63.